

REMARKS

The Examiner's Action mailed on April 29, 2003 has been received and its contents carefully considered.

In this Amendment, claim 20 has been added to the application. Claim 20 corresponds to original claim 6, but does not require the subject matter of intervening claim 5. Claim 1 is the independent claim. Claims 1 and 20 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner has rejected claim 1 as being obvious in view of *Toyoda* (JP 10-4152) in view of *Coico et al.* (USP 6,278,193). It is submitted that this claim is patentably distinguishable over the cited references for at least the following reasons.

Applicant's independent claim 1 is directed to a semiconductor device which includes a semiconductor substrate having a circuit forming surface. A plurality of electrode pads are provided on the circuit forming surface. A semiconductor element is mounted on the circuit forming surface. A plurality of adhesive lines which are adapted for use as reference lines are disposed under the semiconductor element and on the circuit forming surface. The adhesive lines adhere the semiconductor element to the circuit forming surface of the semiconductor substrate. The adhesive lines are respectively provided at positions corresponding to at least three corners of the semiconductor element.

This claimed configuration allows semiconductor elements of varying sizes to be accurately placed, while allowing the semiconductor element to be easily adhered to a semiconductor substrate. These and other advantages of the claimed invention are

discussed in Applicant's specification on page 10, line 1, through page 12, line 10. This claimed configuration is neither disclosed nor suggested by the cited references.

Toyoda teaches a semiconductor device that includes a semiconductor element 29. A metal membrane 39 is formed over a pattern 17. Both the pattern 17 and the metal membrane 39 have a star shaped configuration (see Figures 9, 10 and 12). This reference teaches that the semiconductor element 29 is disposed over the metal membrane 39, and is adhered thereto, using an intervening adhesive 27. The shape of the adhesive is not shown, but it is presumed to have the same shape as the semiconductor element 29, i.e., a square shape. In order to prevent the formation of popcorn cracks, this reference teaches forming thermal via holes 15, and filling these via holes with resin.

However, and in contrast to the present invention, this reference does not disclose or otherwise suggest a plurality of adhesive lines which are adapted for use as reference lines, as recited by Applicant's independent claim 1. The Examiner's Action has stated that this reference teaches a plurality of adhesive lines that are adapted as reference lines. However, and as noted above, there is no apparent disclosure or teaching from this patent that the adhesive 27 is anything more than an intervening layer. In particular, there is no disclosure or suggestion that this adhesive layer 27 is a plurality of adhesive lines, as recited in claim 1. Further, there is also no disclosure or teaching from this reference that this adhesive layer 27 is adapted for use as reference lines, which are respectively provided at positions corresponding to at least three corners of the semiconductor element. The Examiner's Action appears to be confusing the pattern 17 and/or the metal membrane 39 with the adhesive layer 27. However, the

reference makes clear that these are all different features, with the pattern 17 and the metal membrane 39 being separated from the semiconductor element 29 by the separate adhesive layer 27.

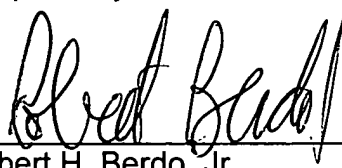
The Examiner's Action also relies on *Coico et al.* as teaching a semiconductor substrate. However, this reference fails to overcome any of the above noted deficiencies of *Toyoda*. As such, it is submitted that the Examiner's Action has failed to establish a *prima facie* case of obviousness against claim 1. It is thus requested that this claim be allowed and it is further requested that this rejection be withdrawn.

Applicant has added claim 20 to the application. This claim is submitted to be patentably distinguishable over the cited references for at least the same reasons as independent claim 1, from which this claim depends, as well as for at least the following additional reasons. Claim 20 recites that the reference lines extend beyond and outside an area that is sealed by the sealing resin. This configuration allows moisture to be more easily released, thus lessening the effect of evaporation stress. In contrast, none of the cited references disclose or suggest this feature. The star pattern 17 disclosed by *Toyoda* is completely covered by the resin 41. Moreover, this reference teaches an alternative arrangement for preventing damage due to moisture, i.e. the filling of the vias 15. Thus, one skilled in the art would have had no motivation to have modified the *Toyoda* arrangement in a manner similar to that recited by claim 20. It is thus requested that this claim be allowed.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of the application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,



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July 7, 2003
Date

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